

HPLC-Chip/MS Protein Identification Solution

Identify more proteins, faster, and with greater confidence

The Agilent HPLC-Chip/MS protein identification solution combines Agilent's advanced tools for protein analysis into an integrated solution for analyzing complex mixtures of proteolytically digested proteins—a solution that can identify more proteins, more quickly, more easily, and with greater confidence.

HPLC-Chip/MS technology maximizes performance and ease of use

Agilent HPLC-Chip/MS technology represents a true revolution in the identification of proteins. The protein HPLC-Chip incorporates traditional nanoflow liquid chromatograph and mass spectrometer components:

- Enrichment column
- Analytical column
- Nanoelectrospray tip
- All connections between the columns and the spray tip

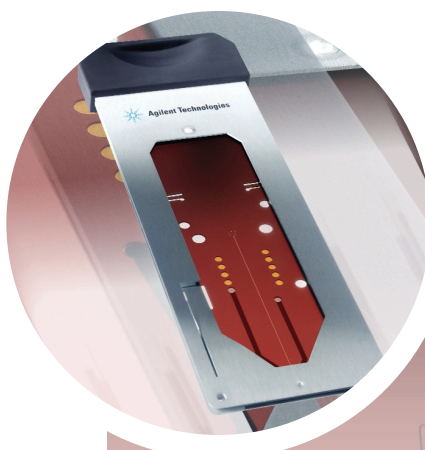
into a reusable, microfluidic polyimide chip the size of a microscope slide. This eliminates post-column dead volumes and minimizes sample path length and peak dispersion.

The result is better-resolved peptide chromatographic peaks. Better resolu-

tion increases number peptides found and proteins identified.

Perfect connections and positioning—automatically

The Chip Cube MS interface contains the microvalve for LC flow switching, and the nanospray ion source. In seconds, it automatically loads the HPLC-Chip, establishing high-pressure, leak-tight fluid connections. The interface precisely positions the spray tip orthogonal to the MS inlet to achieve maximum sensitivity and robustness.



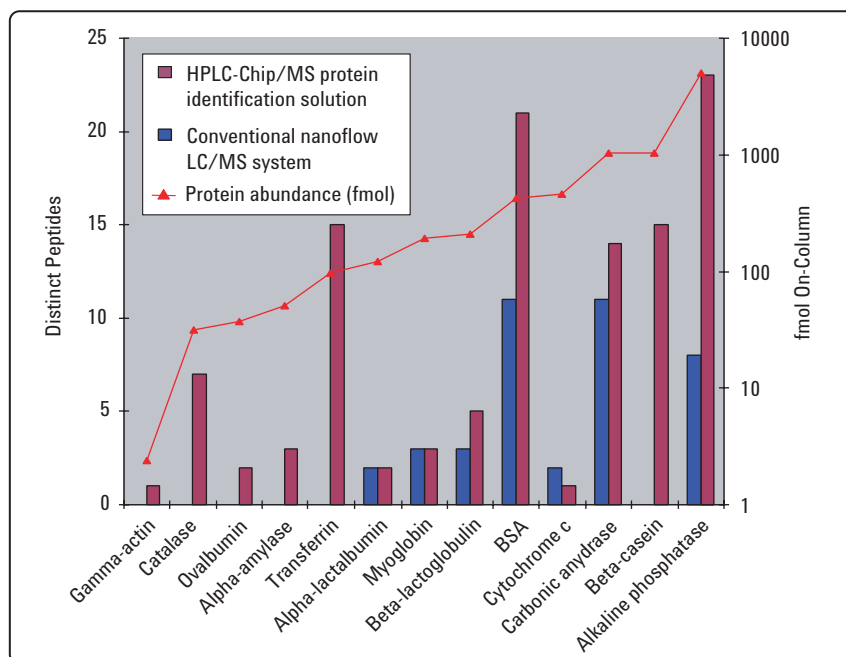
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Faster MS scanning means more proteins identified

The LC/MSD Trap XCT Ultra starts with superior sensitivity and adds a new high-performance data acquisition subsystem that triples the number of MS scans acquired at a given scan speed. This improves the identification of lower-abundance peptides in the presence of coeluting higher abundance peptides. It also improves quantitative accuracy, which can aid in biomarker discovery.

On-site training and support ensure your success

The HPLC-Chip/MS protein identification solution includes protocols that are well documented and easy to follow. It also includes on-site training and support to make sure you and your staff get the maximum benefit from your protein identification solution.



A mixture of proteins, with abundances varying over more than three orders of magnitude, was proteolytically digested and analyzed by conventional nanoflow LC/MS and by the Agilent HPLC-Chip/MS protein identification solution. The HPLC-Chip/MS solution identified almost twice as many proteins (13 vs. 7), including many lower-abundance proteins.

The Agilent HPLC-Chip/MS protein identification solution can be customized to meet your exact needs, but a typical solution might include:

- Agilent immunoaffinity LC columns or spin tubes
- Agilent spin concentrators
- Agilent in-gel tryptic digestion kit
- Protocols for sample preparation and tryptic digestion
- Agilent C18 cleanup pipette tips or spin tubes
- Agilent HPLC-Chip
- Agilent Chip Cube MS interface
- Agilent 1100 Series Nanoflow LC System for MS
- Agilent LC/MSD Trap XCT Ultra ion trap mass spectrometer
- Spectrum Mill MS proteomics workbench
- Protocols for sample analysis
- Training and support

For more information

For more information about the Agilent HPLC-Chip/MS protein identification solution, call toll free:

1-800-227-9770 (U.S. and Canada)

In other countries, please call your local Agilent Technologies life sciences and chemical analysis sales office or authorized Agilent Technologies distributor.

You can also visit our site on the World Wide Web at:

www.agilent.com/chem/proteinID

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